National Institute of Environmental Health Sciences

The effect of global warming on infectious diseases

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Abstract:

Global warming has various effects on human health. The main indirect effects are on infectious diseases. Although the effects on infectious diseases will be detected worldwide, the degree and types of the effect are different, depending on the location of the respective countries and socioeconomical situations. Among infectious diseases, water- and foodborne infectious diseases and vector-borne infectious diseases are two main categories that are forecasted to be most affected. The effect on vector-borne infectious diseases such as malaria and dengue fever is mainly because of the expansion of the infested areas of vector mosquitoes and increase in the number and feeding activity of infected mosquitoes. There will be increase in the number of cases with water- and foodborne diarrhoeal diseases. Even with the strongest mitigation procedures, global warming cannot be avoided for decades. Therefore, implementation of adaptation measures to the effect of global warming is the most practical action we can take. It is generally accepted that the impacts of global warming on infectious diseases have not been apparent at this point yet in East Asia. However, these impacts will appear in one form or another if global warming continues to progress in future. Further research on the impacts of global warming on infectious diseases and on future prospects should be conducted. © 2010.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Ecosystem Changes, Extreme Weather Event, Precipitation, Temperature

Air Pollution: Allergens

Extreme Weather Event: Flooding

Temperature: Extreme Cold, Extreme Heat, Fluctuations

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: Other Asian Region

Other Asian Region: East Asia

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease, Injury, Morbidity/Mortality, Respiratory Effect, Other Health Impact

Infectious Disease: Foodborne/Waterborne Disease, Vectorborne Disease

Foodborne/Waterborne Disease: Cholera, General Foodborne/Waterborne Disease, Other Diarrheal Disease

Vectorborne Disease: Mosquito-borne Disease, Tick-borne Disease

Mosquito-borne Disease: Chikungunya, Dengue, General Mosquito-borne Disease, Malaria, Ross River Virus, Viral Encephalitis, Viral Encephalitis

Tick-borne Disease: General Tick-borne Disease, Tick-borne Encephalitis

Respiratory Effect: Asthma

Other Health Impact: Heat stroke

Medical Community Engagement:

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Other Vulnerable Population: Pre-existing medical conditions

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified